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QUANTUM DOT WHITE AND COLORED LIGHT-EMITTING DEVICES

Abstract of the Disclosure

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A light-emitting device comprising a population of quantum dots (QDs) embedded in a host matrix and a primary light source which causes the QDs to emit secondary light and a method of making such a device. The size distribution of the QDs is chosen to allow light of a particular color to be emitted therefrom. The light emitted from the device may be of either a pure (monochromatic) color, or a mixed (polychromatic) color, and may consist solely of light emitted from the QDs themselves, or of a mixture of light emitted from the QDs and light emitted from the primary source. The QDs desirably are composed of an undoped semiconductor such as CdSe, and may optionally be overcoated to increase photoluminescence.

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